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(54) **CALIBRATION CIRCUIT FOR USE WITH A DIFFERENTIAL INPUT PREAMPLIFIER IN A SENSOR SYSTEM**

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(57) **ABSTRACT**

The calibration circuit is used with a differential input, monolithic integrated circuit preamplifier in a sensor system. The calibration circuit tests the integrity of the sensor, the preamplifier, and the wiring in the sensor system. The calibration circuit includes first and second calibration capacitors having different capacitances connected to the preamplifier input leads. A calibration signal source is connected between the capacitors. The capacitors are preferably implemented on the same integrated circuit as the preamplifier. In operation, a calibration signal of known amplitude is applied to the calibration circuit and the level at the preamplifier output is determined. The level at the preamplifier output indicates certain conditions relating to the integrity of the sensor and its wiring, for example, an open circuit condition or a short circuit condition.

9 Claims, 3 Drawing Sheets

